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Figure 1A

SEQ ID NO:			
6	mouse_E3αII	MASEMEPEVQ AID-RSLLEC SAEEIAGRWL QATDLNREVY QHLAHCVPKI	49
4	human_E3αII	MASELEPEVQ AID-RSLLEC SAEEIAGKWL QATDLTREVY QHLAHYVPKI	49
15	mouse_E3αI	MADEEMDGAE RMDVSPEPPL APQRPASWWD QQVDFYTAFL HHLAQLVPEI	50
2	human_E3αI	MADEEAGGTE RMEISAELPQ TPQRLASWWD QQVDFYTAFL HHLAQLVPEI	50
	Consensus	MA.E..... ..D...L.. .....A..W. Q..D..... .HLA..VP.I	50
6	mouse_E3αII	YCRGPNPFPQ KEDTLAQHIL LGPMEWYICA EDPALGFPKL EQANKPSHLC	99
4	human_E3αII	YCRGPNPFPQ KEDMLAQHVL LGPMEWYLCG EDPAFGFPKL EQANKPSHLC	99
15	mouse_E3αI	YFAEMDPDLE KQEESVQMSI LTPLEWYLFG EDPDICLEKL KHSG-AFQLC	99
2	human_E3αI	YFAEMDPDLE KQEESVQMSI FTPLEWYLFG EDPDICLEKL KHSG-AFQLC	99
	Consensus	Y.....P... K.....Q.. L.P.EWYL.G EDP.....KL LC	100
6	mouse_E3αII	GRVFKVGEPT YSCRDCAVDP TCVLCMECFL GSIHRDHRYR MTTSGGGGFC	149
4	human_E3αII	GRVFKVGEPT YSCRDCAVDP TCVLCMECFL GSIHRDHRYR MTTSGGGGFC	149
15	mouse_E3αI	GKVFKSGETT YSCRDCAIDP TCVLCMDCFQ SSVHKNHRYK MHTSTGGGFC	149
2	human_E3αI	GRVFKSGETT YSCRDCAIDP TCVLCMDCFQ DSVHKNHRYK MHTSTGGGFC	149
	Consensus	GRVFK.GE.T YSCRDCA.DP TCVLCM.CF. .S.H..HRY. M.TS.GGGFC	150
6	mouse_E3αII	DCGDTEAWKE GPYCQKHKLS SSEVVEEEDP LVHLSEDVIA RTYNIFAIMF	199
4	human_E3αII	DCGDTEAWKE GPYCQKHELN TSEIEEEEDP LVHLSEDVIA RTYNIFAITF	199
15	mouse_E3αI	DCGDTEAWKT GPFCVDHEPG RAGTTKESLH -CPLNEEVIA QARRIFPSVI	198
2	human_E3αI	DCGDTEAWKT GPFCVNHEPG RAGTIKENSR -CPLNEEVIV QARKIFPSVI	198
	Consensus	DCGDTEAWK. GP.C..HE.. ......E... ...L.E.VIA ....IF....	200

Figure 1B

```
6    mouse_E3αII  RYAVDILTWE KESELPEDLE VAEKSDTYYC MLFNDEVHTY EQVIYTLQKA  249
4    human_E3αII  RYAVEILTWE KESELPADLE MVEKSDTYYC MLFNDEVHTY EQVIYTLQKA  249
15   mouse_E3αI   KYIVEMTIWE EEKELPPELQ IREKNERYYC VLFNDEHHSY DHVIYSLQRA  248
2    human_E3αI   KYVVEMTIWE EEKELPPELQ IREKNERYYC VLFNDEHHSY DHVIYSLQRA  248
     Consensus    .Y.VE...WE .E.ELP..L. ..EK...YYC .LFNDE.H.Y ..VIY.LQ.A  250

6    mouse_E3αII  VNCTQKEAIG FATTVDRDGR RPVRYGDFQY CDQAKTVIVR NTSRQTK-PL  298
4    human_E3αII  VNCTQKEAIG FATTVDRDGR RSVRYGDFQY CEQAKSVIVR NTSRQTK-PL  298
15   mouse_E3αI   LDCELAEAQL HTTAIDKEGR RAVKAGVYAT CQEAKEDIKS HSENVSQHPL  298
2    human_E3αI   LDCELAEAQL HTTAIDKEGR RAVKAGAYAA CQEAKEDIKS HSENVSQHPL  298
     Consensus    ..C...EA.. ..T..D..GR R.V..G.... C..AK..I.. ........PL  300

6    mouse_E3αII  KVQVMHSSVA AHQNFGLKAL SWLGSVIGYS DGLRRILCQV GLQEGPDGEN  348
4    human_E3αII  KVQVMHSSIV AHQNFGLKLL SWLGSIIGYS DGLRRILCQV GLQEGPDGEN  348
15   mouse_E3αI   HVEVLHSVVM AHQKFALRLG SWMNKIMSYS SDFRQIFCQA CLVEEPGSEN  348
2    human_E3αI   HVEVLHSEIM AHQKFALRLG SWMNKIMSYS SDFRQIFCQA CLREEPDSEN  348
     Consensus    .V.V.HS... AHQ.F.L.L. SW...I..YS ...R.I.CQ. .L.E.PD.EN  350
```

Figure 1C

6	mouse_E3αII	SSLVDRLMLN	DSKLWKGARS	VYHQLFMSSL	LMDLKYKKLF	ALRFAKNYRQ	398
4	human_E3αII	SSLVDRLMLS	DSKLWKGARS	VYHQLFMSSL	LMDLKYKKLF	AVRFAKNYQQ	398
15	mouse_E3αI	PCLISRLMLW	DAKLYKGARK	ILHELIFSSF	FMEMEYKKLF	AMEFVKYYKQ	398
2	human_E3αI	PCLISRLMLW	DAKLYKGARK	ILHELIFSSF	FMEMEYKKLF	AMEFVKYYKQ	398
	Consensus	..L..RLML.	D.KL.KGAR.	..H.L..SS.	.M..YKKLF	A..F.K.Y.Q	400

6	mouse_E3αII	LQRDFMEDDH	ERAVSVTALS	VQFFTAPTLA	RMLLTEENLM	TVIIKAFMDH	448
4	human_E3αII	LQRDFMEDDH	ERAVSVTALS	VQFFTAPTLA	RMLITEENLM	SIIIKTFMDH	448
15	mouse_E3αI	LQKEYISDDH	ERSISITALS	VQMLTVPTLA	RHLIEEQNVI	SVITETLLEV	448
2	human_E3αI	LQKEYISDDH	DRSISITALS	VQMFTVPTLA	RHLIEEQNVI	SVITETLLEV	448
	Consensus	LQ.....DDH	ER..S.TALS	VQ.FT.PTLA	R.LI.E.N..	SVI..T...	450

Figure 1D

SEQ ID NO:											
6	mouse_E3αII	LKHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLISK	PTEWSDELRQ	498
4	human_E3αII	LRHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLISK	PTEWSDELRQ	498
15	mouse_E3αI	LPEYLDRNN-	KFN-FQGYSQ	DKLGRVYAVI	CDLKYILISK	PVIWTERLRA	496
2	human_E3αI	LPEYLDRNN-	KFN-FQGYSQ	DKLGRVYAVI	CDLKYILISK	PTIWTERLRM	496
	Consensus	L.....	.F.....	.K..RV...I	.DLKY.LISK	PT.W...LR.	500
6	mouse_E3αII	KFLQGFDAFL	ELLKCMQGMD	PITRQVGQHI	EMEPEWEAAF	TLQMKLTHVI	548
4	human_E3αII	KFLEGFDAFL	ELLKCMQGMD	PITRQVGQHI	EMEPEWEAAF	TLQMKLTHVI	548
15	mouse_E3αI	QFLEGFRSFL	KILTCMQGME	EIRRQVGQHI	EVDPDWEAAI	AIQMQLKNIL	546
2	human_E3αI	QFLEGFRSFL	KILTCMQGME	EIRRQVGQHI	EVDPDWEAAI	AIQMQLKNIL	546
	Consensus	.FLEGF..FL	..L.CMQGM.	.I.RQVGQHI	E..P.WEAA.	..QM.L....	550
6	mouse_E3αII	SMVQDWCALD	EKVLIEAYKK	CLAVLTQCHG	GFTDGEQPIT	LSICGHSVET	598
4	human_E3αII	SMMQDWCASD	EKVLIEAYKK	CLAVLMQCHG	GYTDGEQPIT	LSICGHSVET	598
15	mouse_E3αI	LMFQEWCACD	EDLLLVAYKE	CHKAVMRCST	NFMSSTKTV-	VQLCGHSLET	595
2	human_E3αI	LMFQEWCACD	EELLLVAYKE	CHKAVMRCST	SFISSSKTV-	VQSCGHSLET	595
	Consensus	.M.Q.WCA.D	E..L..AYK.	C....M.C..	.F.....	...CGHS.ET	600

Figure 1E

```
6    mouse_E3αII  IRYCVSQEKV SIHLPISRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML  648
4    human_E3αII  IYCVSQEKV SIHLPVSRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML  648
15   mouse_E3αI   KSYKVSEDLV SIHLPLSRTL AGLHVRLSRL GAISRLHEFV PFDSFQVEVL  645
2    human_E3αI   KSYRVSEDLV SIHLPLSRTL AGLHVRLSRL GAVSRLHEFV SFEDFQVEVL  645
     Consensus    ..Y.VS...V SIHLP.SR.L AGLHV.LS.. .......E.. P........L  650

6    mouse_E3αII  IEHPLRCLVL CAQVHAGMWR RNGFSLVNQI YYYHNVKCRR EMFDKDIVML  698
4    human_E3αII  IEHPLRCLVL CAQVHAGMWR RNGFSLVNQI YYYHNVKCRR EMFDKDVVML  698
15   mouse_E3αI   VEYPLRCLVL VAQVVAEMWR RNGLSLISQV FYYQDVKCRE EMYDKDIIML  695
2    human_E3αI   VEYPLRCLVL VAQVVAEMWR RNGLSLISQV FYYQDVKCRE EMYDKDIIML  695
     Consensus    .E.PLRCLVL .AQV.A.MWR RNG.SL..Q. .YY..VKCR. EM.DKDI.ML  700

6    mouse_E3αII  QTGVSMMDPN HFLMIMLSRF ELYQLFSTPD YGKRFSSEVT HKDVVQQNNT  748
4    human_E3αII  QTGVSMMDPN HFLMIMLSRF ELYQIFSTPD YGKRFSSEIT HKDVVQQNNT  748
15   mouse_E3αI   QIGASIMDPN KFLLLVLQRY EL-----TDA FNKTIST--K DQDLIKQYNT  738
2    human_E3αI   QIGASLMDPN KFLLLVLQRY EL-----AEA FNKTIST--K DQDLIKQYNT  738
     Consensus    Q.G.S.MDPN .FL...L.R. EL.....T.. ..K..S.... ..D...Q.NT  750
```

Figure 1F

6	mouse_E3αII	LIEEMLYLII	MLVGERFNPG	VGQVAATDEI	KREIIHQLSI	KPMAHSELVK	798
4	human_E3αII	LIEEMLYLII	MLVGERFSPG	VGQVNATDEI	KREIIHQLSI	KPMAHSELVK	798
15	mouse_E3αI	LIEEMLQVLI	YIVGERYVPG	VGNVTREEVI	MREITHLLCI	EPMPHSAIAR	788
2	human_E3αI	LIEEMLQVLI	YIVGERYVPG	VGNVTKEEVT	MREIIHLLCI	EPMPHSAIAK	788
	Consensus	LIEEML...I	..VGER..PG	VG.V.....I	.REIIH.L.I	.PM.HS...K	800

6	mouse_E3αII	SLPEDENKET	GMESVIESVA	HFKKPGLTGR	GMYELKPECA	KEFNLYFYHF	848
4	human_E3αII	SLPEDENKET	GMESVIEAVA	HFKKPGLTGR	GMYELKPECA	KEFNLYFYHF	848
15	mouse_E3αI	NLPENENNET	GLENVINKVA	TFKKPGVSGH	GVYELKDESL	KDFNMYFYHY	838
2	human_E3αI	NLPENENNET	GLENVINKVA	TFKKPGVSGH	GVYELKDESL	KDFNMYFYHY	838
	Consensus	.LPE.EN.ET	G.E.VI..VA	.FKKPG..G.	G.YELK.E..	K.FN.YFYH.	850

6	mouse_E3αII	SRAEQSKAEE	AQRKLKRENK	EDTALPPPAL	PPFCPLFASL	VNILQCDVML	898
4	human_E3αII	SRAEQSKAEE	AQRKLKRQNR	EDTALPPPVL	PPFCPLFASL	VNILQSDVML	898
15	mouse_E3αI	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	VNLLSCDVMI	888
2	human_E3αI	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	INLLNCDIMM	888
	Consensus	S....SKAE.	.Q.K...Q..	.D.ALPPP..	P.FCP.F...	VN.L.CDVM.	900

Figure 1G

SEQ ID NO:

6	mouse_E3αII	YIMGTILQWA VEHHGSAWSE SMLQRVLHLI GMALQEEKHH LENAVEGHVQ	948
4	human_E3αII	CIMGTILQWA VEHNGYAWSE SMLQRVLHLI GMALQEEKQH LENVTEEHVV	948
15	mouse_E3αI	YILRTIFERA VDTESNLWTE GMLQMAFHIL ALGLLEEKQQ LQKAPEEEV-	937
2	human_E3αI	YILRTVFERA IDTDSNLWTE GMLQMAFHIL ALGLLEEKQQ LQKAPEEEV-	937
	Consensus	YI..TI...A V.....W.E .MLQ...H.. ...L.EEKQ. L..A.EE.V.	950
6	mouse_E3αII	TFTFTQKISK PGDAPHNSPS ILAMLETLQN APSLEAHKDM IRWLLKMFNA	998
4	human_E3αII	TFTFTQKISK PGEAPKNSPS ILAMLETLQN APYLEVHKDM IRWILKTFNA	998
15	mouse_E3αI	AFDFYHKASR LGSSAMNAQN IQMLLERLKG IPQLEGQKDM ITWILQMFDT	987
2	human_E3αI	TFDFYHKASR LGSSAMNIQM L---LEKLKG IPQLEGQKDM ITWILQMFDT	984
	Consensus	TF.F..K.S. .G....N... I...LE.L.. .P.LE..KDM I.WIL.MF..	1000
6	mouse_E3αII	IKKIRE--CS SSSPVAEAEG TIMEESSRDK DKAERKRKAE IARLRREKIM	1046
4	human_E3aI	VKKMRE--SS PTSPVAETEG TIMEESSRDK DKAERKRKAE IARLRREKIM	1046
15	mouse_E3αI	VKRLREKSCL VVATTSGLEC IKSEEITHDK EKAERKRKAE AARLHRQKIM	1037
2	human_E3αI	VKRLREKSCL IVATTSGSES IKNDEITHDK EKAERKRKAE AARLHRQKIM	1034
	Consensus	VK..RE..C. ....E. ...EE...DK .KAERKRKAE .ARL.R.KIM	1050

Figure 1H

6	mouse_E3αII	AQMSEMQRHF IDENKELFQQ TLELDTSASA TL--DSSPPV SDAALTALGP	1094
4	human_E3αII	AQMSEMQRHF IDENKELFQQ TLELDASTSA VL--DHSPVA SDMTLTALGP	1094
15	mouse_E3αI	AQMSALQKNF IETHKLMYDN TSEVTGKEDS IMEEESTSAV SEASRIALGP	1087
2	human_E3αI	AQMSALQKNF IETHKLMYDN TSEMPGKEDS IMEEESTPAV SDYSRIALGP	1084
	Consensus	AQMS..Q..F I...K..... T.E..... .....S.P.V SD....ALGP	1100
6	mouse_E3αII	AQTQVPEPRQ FVTCILCQEE QEVTVGSRAM VLAAFVQRST VLSKDRTKTI	1144
4	human_E3αII	TQTQVPEQRQ FVTCILCQEE QEVKVESRAM VLAAFVQRST VLSKNRSKFI	1144
15	mouse_E3αI	KRGPAVTEKE VLTCILCQEE QEVKLENNAM VLSACVQKST ALTQHRGKPV	1137
2	human_E3α	KRGPSVTEKE VLTCILCQEE QEVKIENNAM VLSACVQKST ALTQHRGKPI	1134
	Consensus	....TCILCQEE QEVK.E..AM VL.A.VQ.ST .L...R.K.I	1150
6	mouse_E3αII	AD-PEKYDPL FMHPDLSCGT HTGSCGHVMH AHCWQRYFDS VQAKEQRRQQ	1193
4	human_E3αII	QD-PEKYDPL FMHPDLSCGT HTSSCGHIMH AHCWQRYFDS VQAKEQRRQQ	1193
15	mouse_E3αI	DHLGETLDPL FMDPDLAHGT YTGSCGHVMH AVCWQKYFEA VQ---LSSQQ	1184
2	human_E3αI	ELSGEALDPL FMDPDLAYGT YTGSCGHVMH AVCWQKYFEA VQ---LSSQQ	1181
	Consensus	....E..DPL FM.PDL..GT .TGSCGHVMH A.CWQ.YF.. VQ.....QQ	1200

Figure 1l

6	mouse_E3αII	RLRLHTSYDV	ENGEFLCPLC	ECLSNTVIPL	L-LPPRSILS	RRLN-FSDQP	1241
4	human_E3αII	RLRLHTSYDV	ENGEFLCPLC	ECLSNTVIPL	L-LPPRNIFN	NRLN-FSDQP	1241
15	mouse_E3αI	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENAEALAQLL	1233
2	human_E3αI	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENADALAQLL	1230
	Consensus	R.....D.	E.GE.LCPLC	..L.NTVIP.	..L.P..I.S	....	1250
6	mouse_E3αII	DLAQWTRAVT	QQIKVVQMLR	RKHNAA-DTS	SSEDTEAMNI	IPIPEGFRPD	1290
4	human_E3αII	NLTQWMRTIS	QQIKALQFLR	KEESTP-NNA	STKNSENVDE	LQLPEGFRPD	1290
15	mouse_E3αI	TLARWMQTVL	ARISGYNIKH	AKGEAPAVPV	LFNQGMGDST	FEFHSILSFG	1283
2	human_E3αI	TLARWMQTVL	ARISGYNIRH	AKGENP-IPI	FFNQGMGDST	LEFHSILSFG	1279
	Consensus	.LA.WM.TV.	..I.....	.K...P-...	....	....	1300
6	mouse_E3αII	FYPRNPYSDS	IKEMLTTFGT	AAYKVGLKVH	PNEGDPRVPI	LCWGTCAYTI	1340
4	human_E3αII	FRPKIPYSES	IKEMLTTFGT	ATYKVGLKVH	PNEEDPRVPI	MCWGSCAYTI	1340
15	mouse_E3αI	VQSSVKYSNS	IKEMVILFAT	TIYRIGLKVP	PDELDPRVPM	MTWSTCAFTI	1333
2	human_E3αI	VESSIKYSNS	IKEMVILFAT	TIYRIGLKVP	PDERDPRVPM	LTWSTCAFTI	1329
	Consensus	......YS.S	IKEM..F.T	..Y..GLKV.	P.E.DPRVP.	..W.TCA.TI	1350

Figure 1J

SEQ ID NO:						
6 mouse_E3αII	QSIERILSDE	EKPVFGPLPC	RLDDCLRSLT	RFAAAHWTVA	LLPVVQGHFC	1390
4 human_E3αII	QSIERILSDE	DKPLFGPLPC	RLDDCLRSLT	RFAAAHWTVA	SVSVVQGHFC	1390
15 mouse_E3αI	QAIENLLGDE	GKPLFGALQN	RQHSGLKALM	QFAVAQRATC	PQVLIHKHLA	1383
2 human_E3αI	QAIENLLGDE	GKPLFGALQN	RQHNGLKALM	QFAVAQRITC	PQVLIQKHLV	1379
Consensus	Q . IE . . L .DE	. KPLFG . L . .	R . . . . L . . L .	. FA . A	. . . . . Q . H . .	1400
6 mouse_E3αII	KLFASLVPSD	SYEDLPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGSSL	1437
4 human_E3αII	KLFASLVPND	SHEELPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGISL	1437
15 mouse_E3αI	RLLSVILPNL	QSENTPGLLS	VDLFHVLVGA	VLAFPSLYWD	DTVDLQPSPL	1433
2 human_E3αI	RLLSVVLPNI	KSEDTPCLLS	IDLFHVLVGA	VLAFPSLYWD	DPVDLQPSSV	1429
Consensus	. L . . . . . PN.	. . E . . PC .L .	ID. FH. LVG .	VLAFP. L . . .	D . . . . . SSL	1450
6 mouse_E3αII	ATG--DLHIF	HLVTMAHIVQ	ILLTSCTEEN	---GMDQENP	TGEEELAILS	1482
4 human_E3αII	GTG--DLHIF	HLVTMAHIIQ	ILLTSCTEEN	---GMDQENP	PCEEESAVLA	1482
15 mouse_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTTDTDLS	PGPPLAEGEE	DSEEARCASA	1483
2 human_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTVDTGL-	---PLAQVQE	DSEEAHSASS	1475
Consensus	. . . . . L . . F	HL. TMAH . . Q	ILLT . . T . . .	--- . . . Q . . .	. . EE	1500

Figure 1K

```
6  mouse_E3αII    LHKTLHQYTG  SALKEAPSGW  HLWRSVRAAI  MPFLKCSAL   FHYLNGVPAP  1532
4  human_E3αII    LYKTLHQYTG  SALKEIPSGW  HLWRSVRAGI  MPFLKCSALF  FHYLNGVPSP  1532
15 mouse_E3αI     FFVEVSQHTD  GLTGCGAPGW  YLWLSLRNGI  TPYLRCAALL  FHYLLGVAPP  1533
2  human_E3αI     FFAEISQYTS  GSIGCDIPGW  YLWVSLKNGI  TPYLRCAALF  FHYLLGVTPP  1525
   Consensus      .......QYT.  ........GW  .LW.S.R.GI  .P.L.C.ALF  FHYL.GV..P  1550

6  mouse_E3αII    PDLQV-SGTS  HFEHLCNYLS  LPTNLIHLFQ  ENSDIMNSLI  ESWCQNSEVK  1581
4  human_E3αII    PDIQV-PGTS  HFEHLCSYLS  LPNNLICLFQ  ENSEIMNSLI  ESWCRNSEVK  1581
15 mouse_E3αI     EELFANSAEG  EFSALCSYLS  LPTNLFLLFQ  EYWDTIRPLL  QRWCGDPALL  1583
2  human_E3αI     EELHTNSAEG  EYSALCSYLS  LPTNLFLLFQ  EYWDTVRPLL  QRWCADPALL  1575
   Consensus      ..L...S...  .F..LCSYLS  LPTNL..LFQ  E..D....L.  ..WC......  1600

6  mouse_E3αII    RYLNGERGAI  SYPRGANKLI  DLPEDYSSLI  NQASNFSCPK  SGGDKSRAPT  1631
4  human_E3αII    RYLEGERDAI  RYPRESNKLI  NLPEDYSSLI  NQASNFSCPK  SGGDKSRAPT  1631
15 mouse_E3αI     KSLKQKSAVV  RYPRKRNSLI  ELPEDYSCLL  NQASHFRCPR  SADDERKHPV  1633
2  human_E3αI     NCLKQKNTVV  RYPRKRNSLI  ELPDDYSCLL  NQASHFRCPR  SADDERKHPV  1625
   Consensus      ..L.......  RYPR..N.LI  .LPEDYS.L.  NQAS.F.CP.  S..D....P.  1650
```

Figure 1L

6	mouse_E3αII	LCLVCGSLLC	SQSYCCQAEL	EGEDVGACTA	HTYSCGSGAG	IFLRVRECQV	1681
4	human_E3αII	LCLVCGSLLC	SQSYCCQTEL	EGEDVGACTA	HTYSCGSGVG	IFLRVRECQV	1681
15	mouse_E3αI	LCLFCGAILC	SQNICCQEIV	NGEEVGACVF	HALHCGAGVC	IFLKIRECRV	1683
2	human_E3αI	LCLFCGAILC	SQNICCQEIV	NGEEVGACIF	HALHCGAGVC	IFLKIRECRV	1675
	Consensus	LCL.CG..LC	SQ..CCQ...	.GE.VGAC..	H...CG.GV.	IFL..REC.V	1700

6	mouse_E3αII	LFLAGKTKGC	FYSPPYLDDY	GETDQGLRRG	NPLHLCQERF	RKIQKLWQQH	1731
4	human_E3αII	LFLAGKTKGC	FYSPPYLDDY	GETDQGLRRG	NPLHLCKERF	KKIQKLWHQH	1731
15	mouse_E3αI	VLVEGKARGC	AYPAPYLDEY	GETDPGLKRG	NPLHLSRERY	RKLHLVWQQH	1733
2	human_E3αI	VLVEGKARGC	AYPAPYLDEY	GETDPGLKRG	NPLHLSRERY	RKLHLVWQQH	1725
	Consensus	....GK..GC	.Y..PYLD.Y	GETD.GL.RG	NPLHL..ER.	RK....WQQH	1750

6	mouse_E3αII	SITEEIGHAQ	EANQTLVGID	WQHL		1755
4	human_E3αII	SVTEEIGHAQ	EANQTLVGID	WQHL		1755
15	mouse_E3αI	CIIEEIARSQ	ETNQMLFGFN	WQLL		1757
2	human_E3αI	CIIEEIARSQ	ETNQMLFGFN	WQLL		1749
	Consensus	.I.EEI...Q	E.NQ.L.G..	WQ.L		1774

FIG. 2

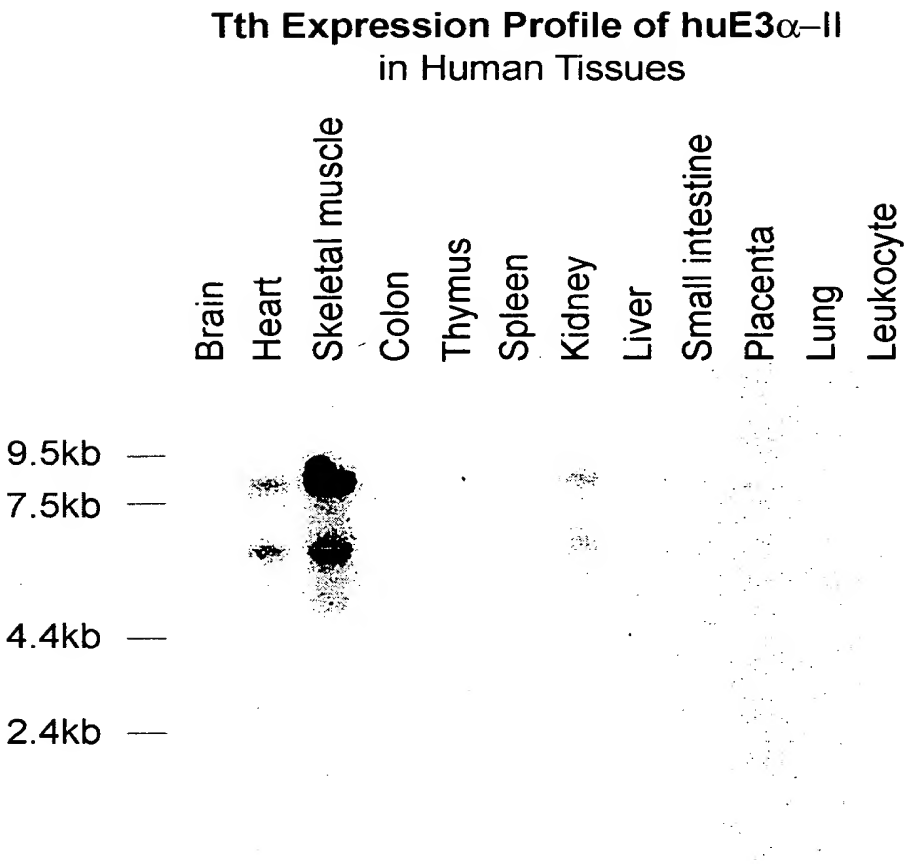

FIG. 3

Tth Expression Profile of huE3α-I in Human Tissues

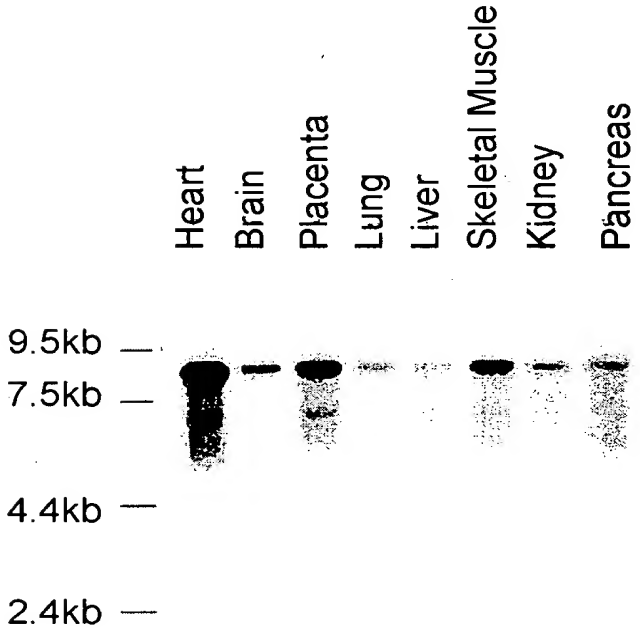

Figure 4
Ubiquitination of Endogenous Proteins

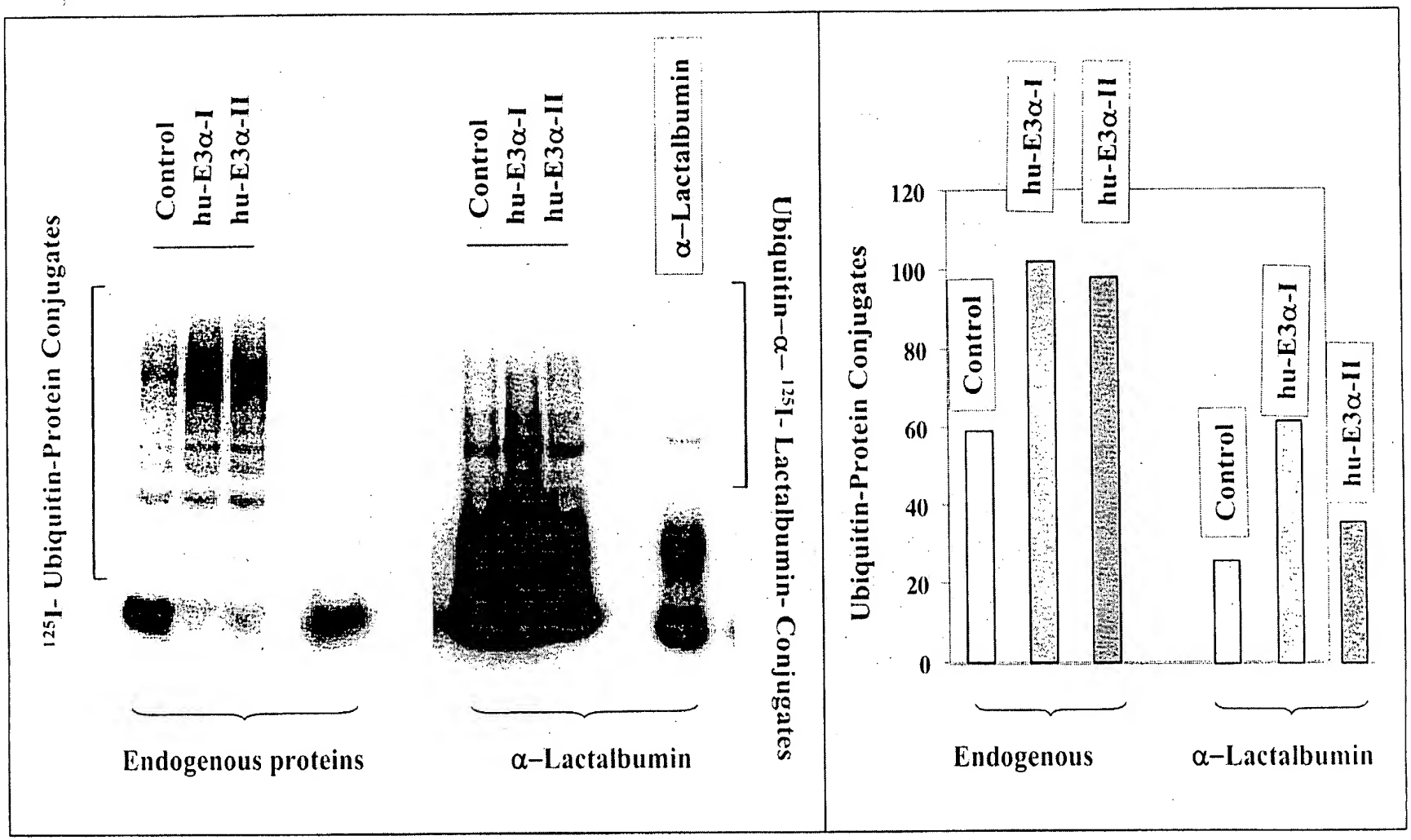

Figure 5

Transfection of Human E3a-I or E3a-II cDNA Stimulates Ubiquitin Conjugation in Cultured Muscle Cell Lines

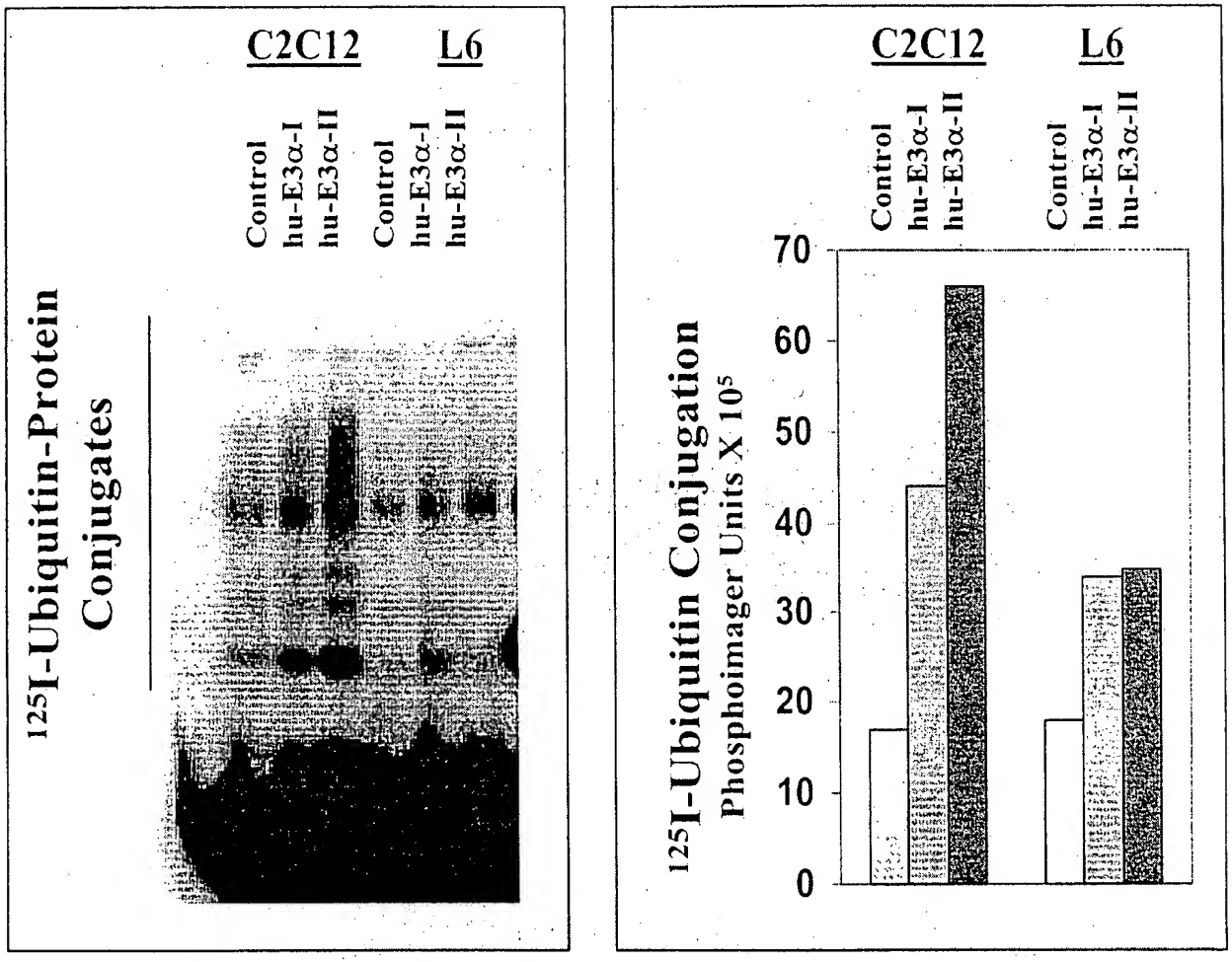

Figure 6

^{125}I-Ubiquitin Conjugation to Muscle Proteins and Its Sensitivity to E3α Inhibitor in Skeletal Muscle Extracts

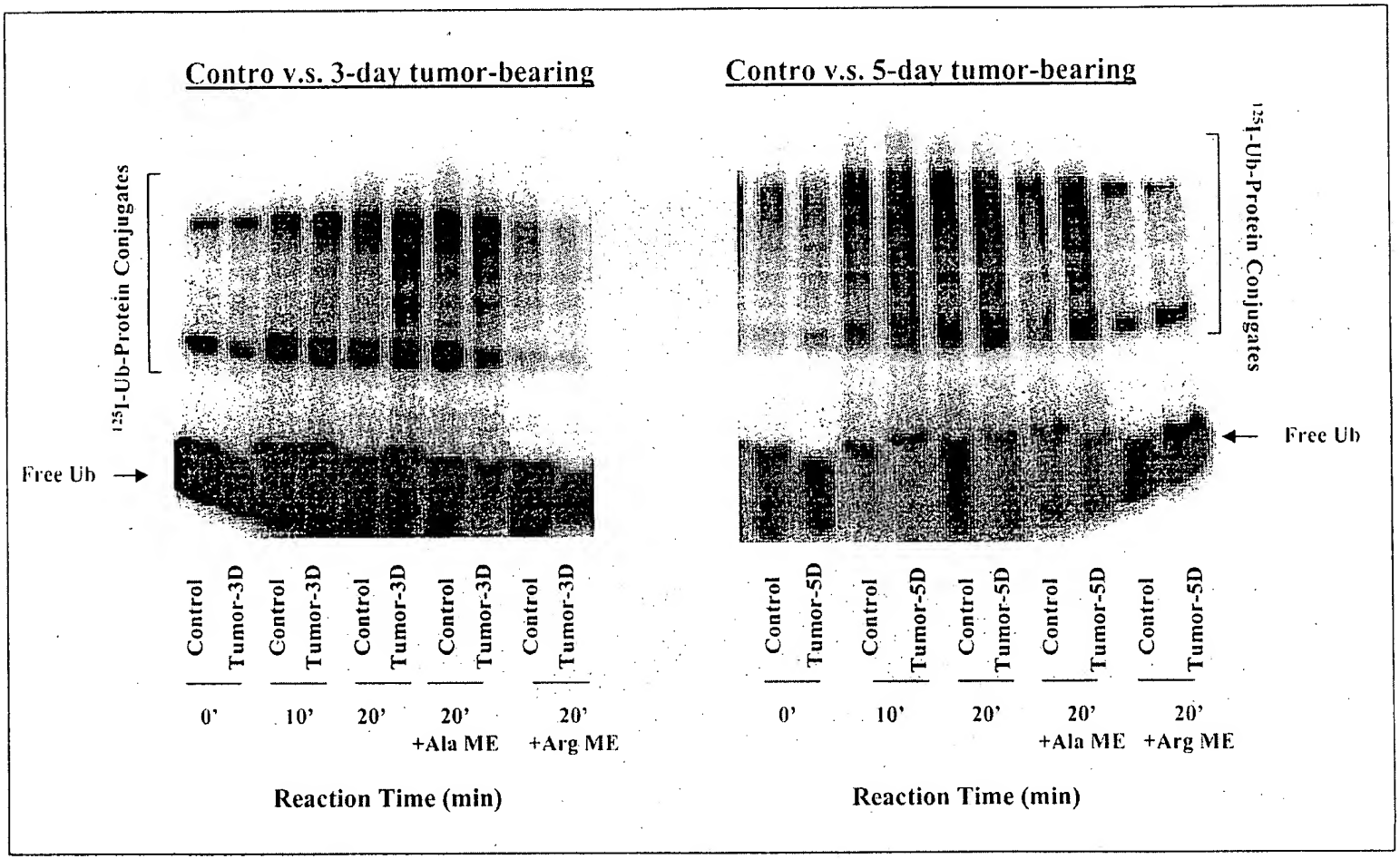

Figure 7

Rates of Ubiquitination of N-end Rule Substrate α-Lactalbumin in Skeletal Muscle Extracts

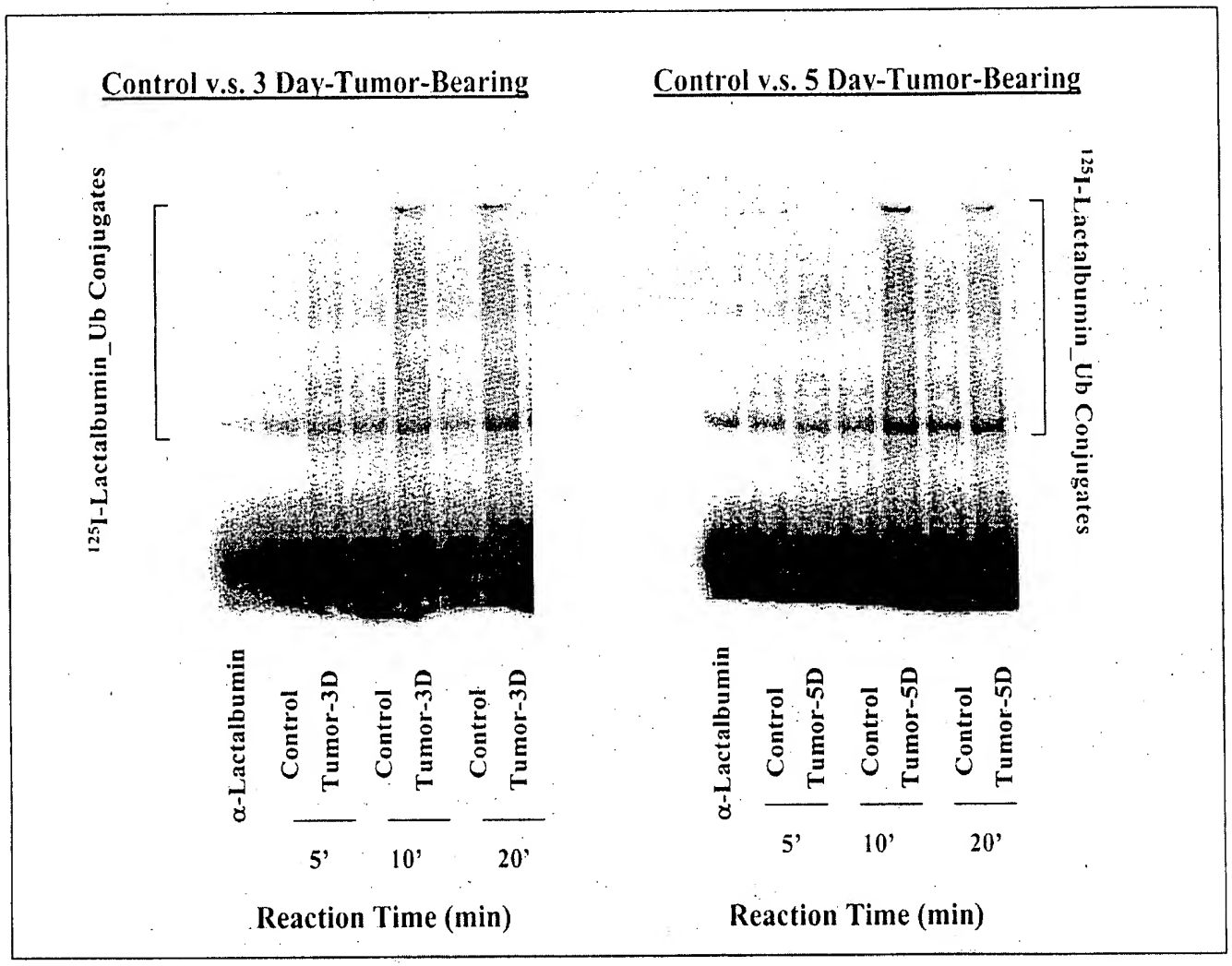

Figure 8

Northern blot analysis of E3α-I & E3α-II expression in gastrocnemius muscles in YAH-130 exprimental cachexia model

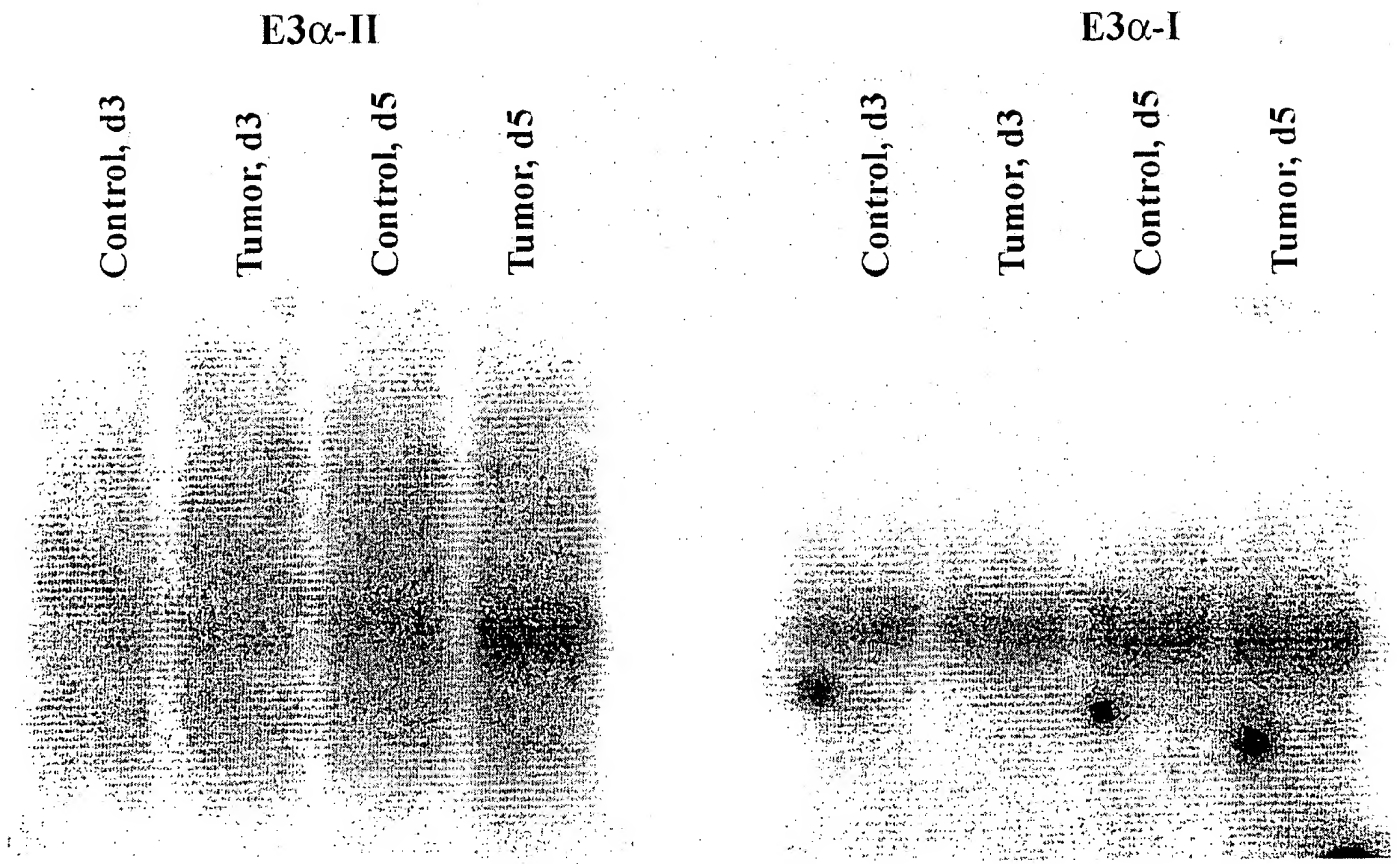

Figure 9

Northern blot analysis of E3α-I and E3α-II expression in gastrocnemius muscle and cardiac muscle in C26 experimental cachexia model

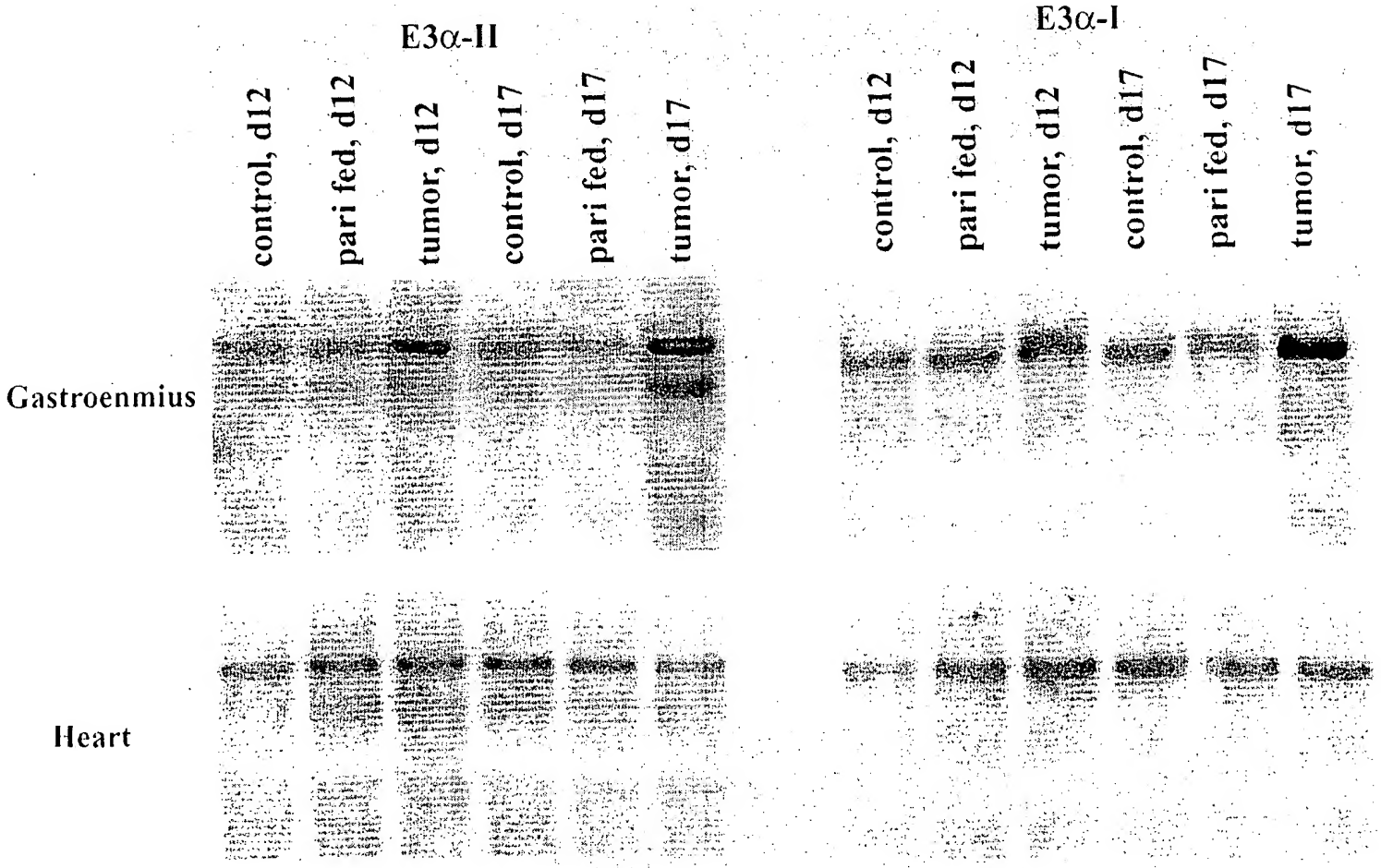

Figure 10

Proinflammatory cytokines TNF-α and IL-6 induce E3α-II Expression in C2C12 myostube culture

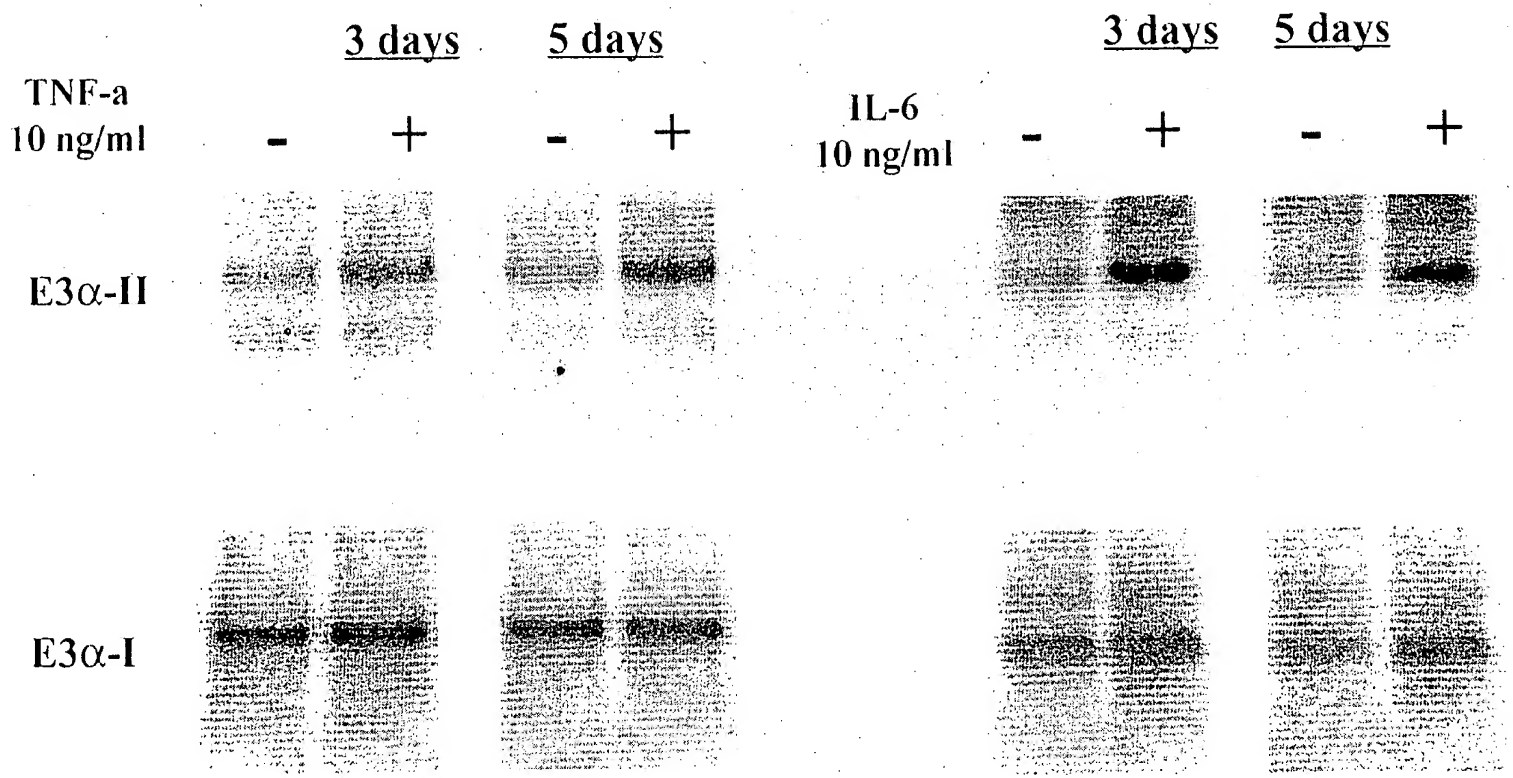

Figure 11

IL-6 Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures

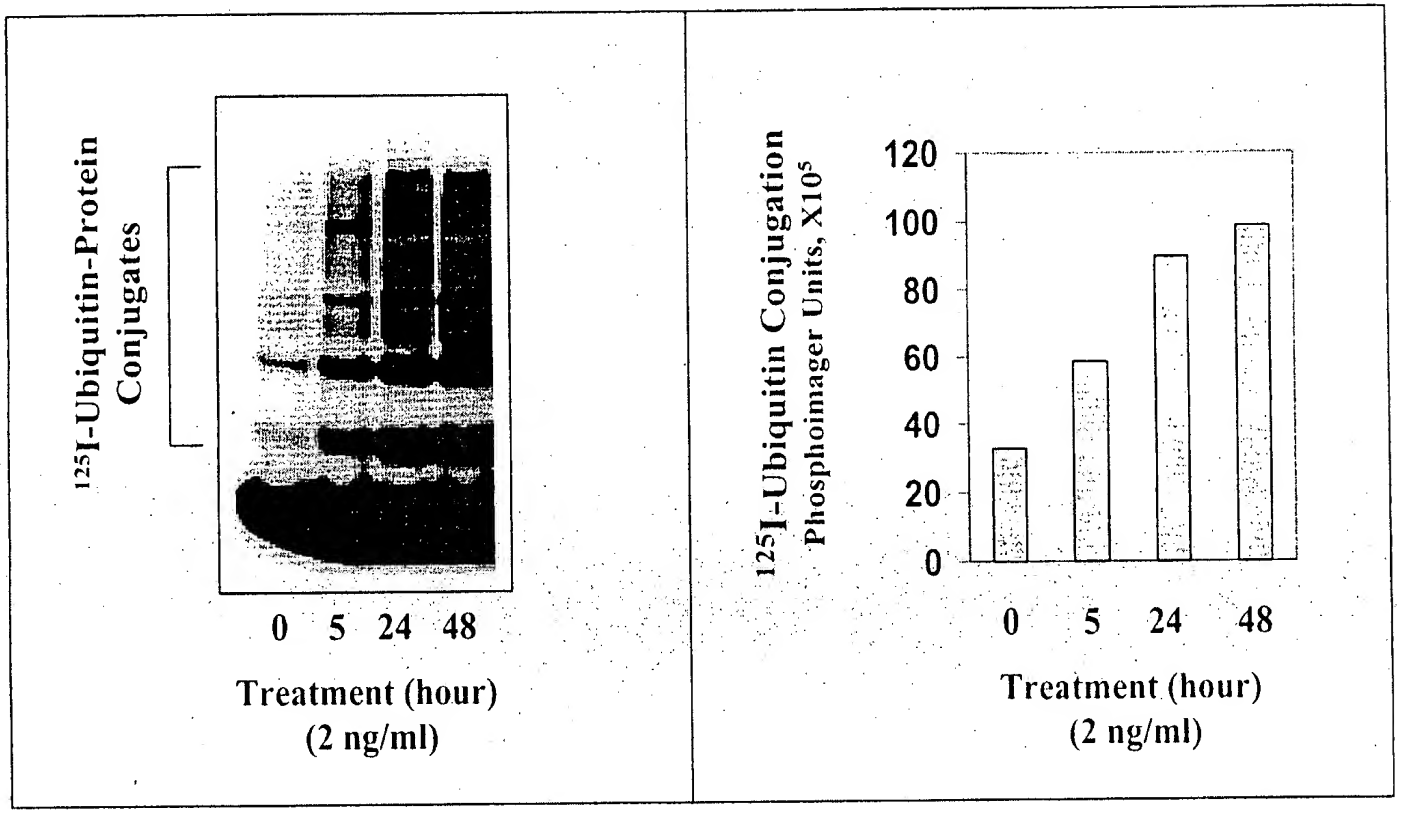

Figure 12

TNFα Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures